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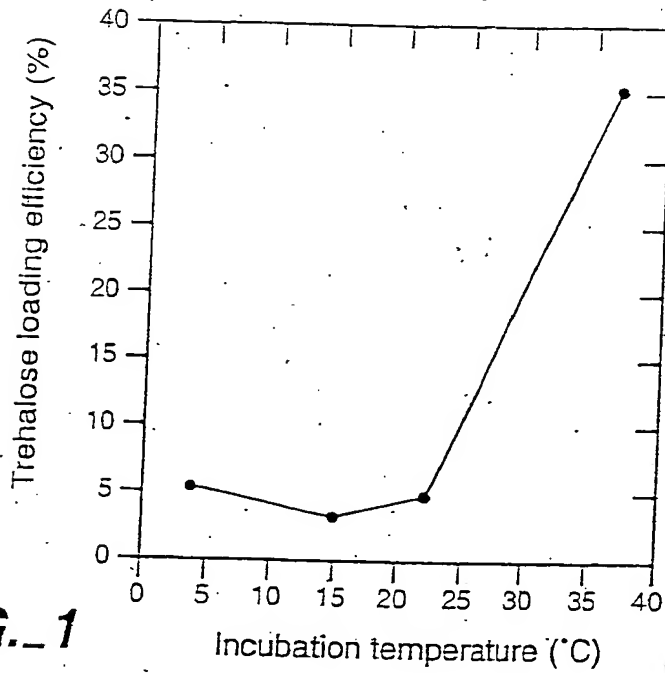


FIG. 1

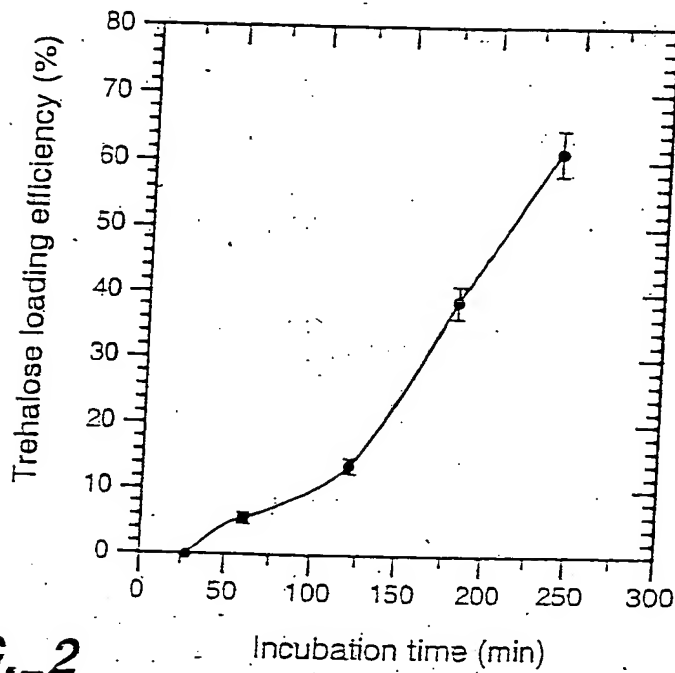


FIG. 2

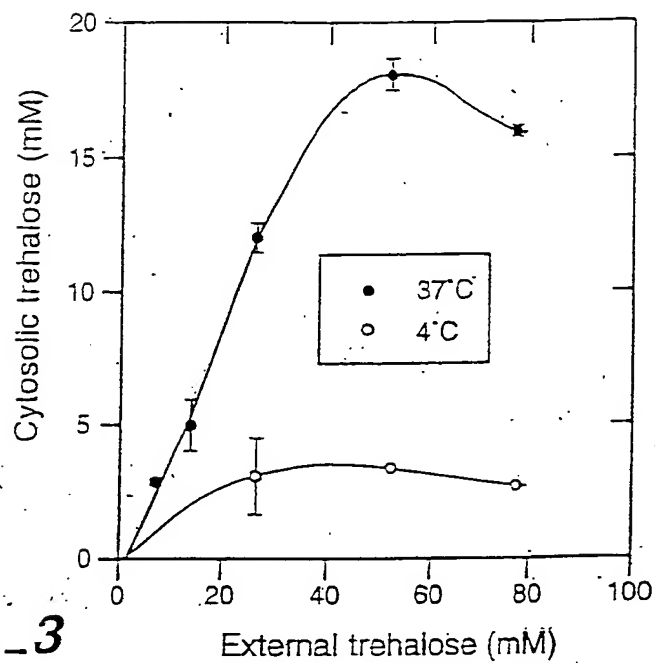


FIG._3

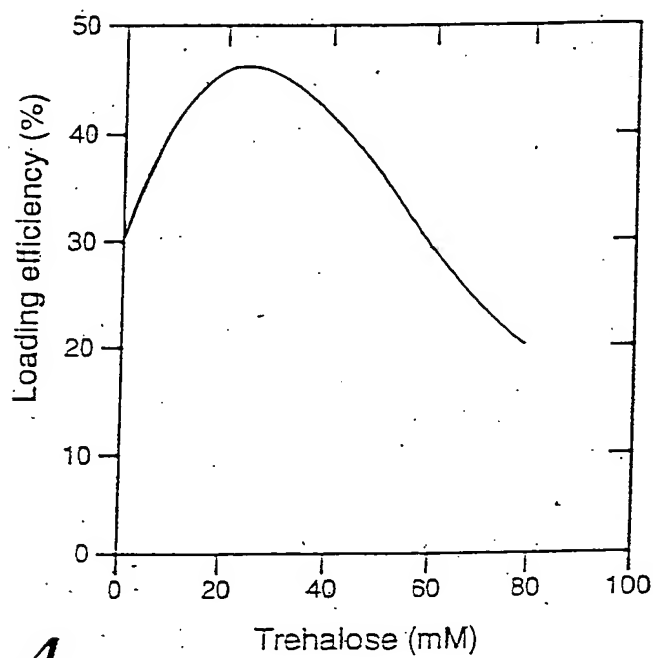


FIG._4

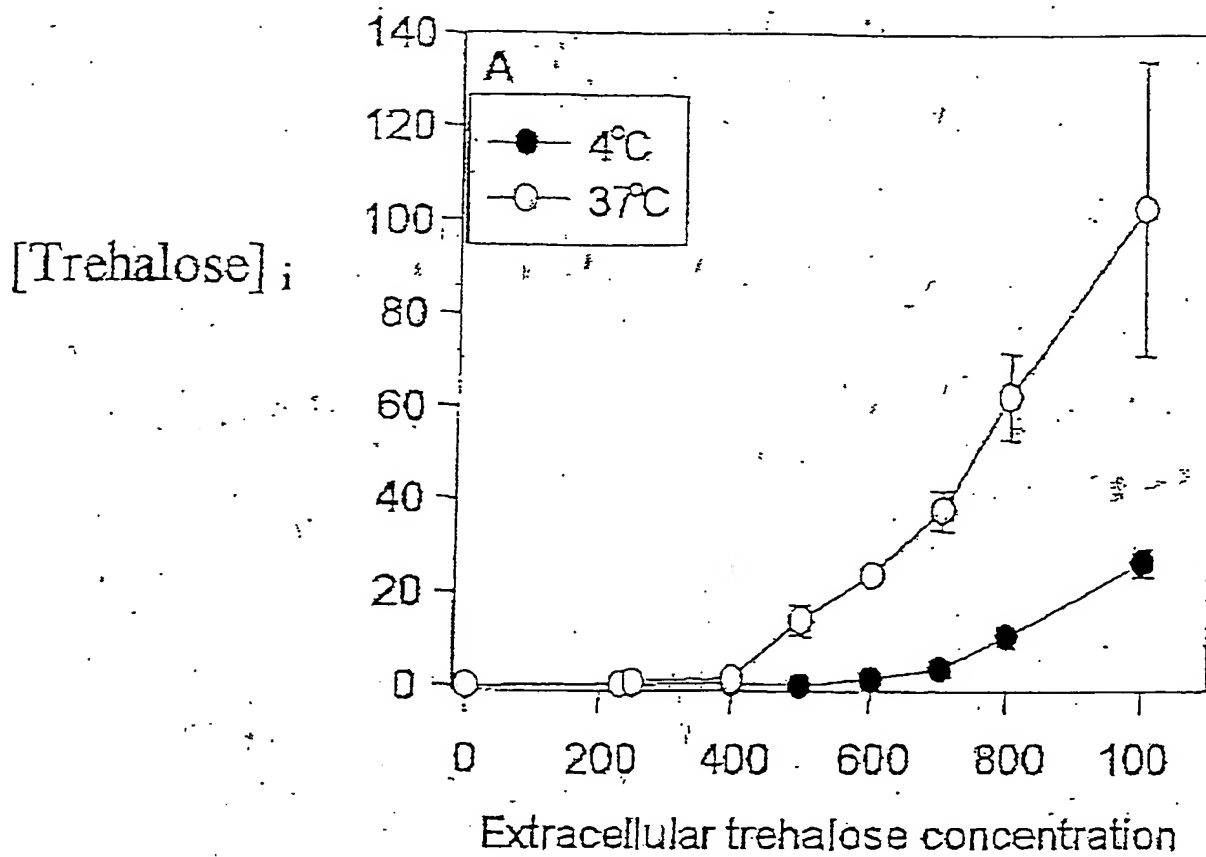


Fig. 5

**Fragility index of RBCs incubated overnight at 4 or 37°C
in the presence of increasing trehalose concentrations**

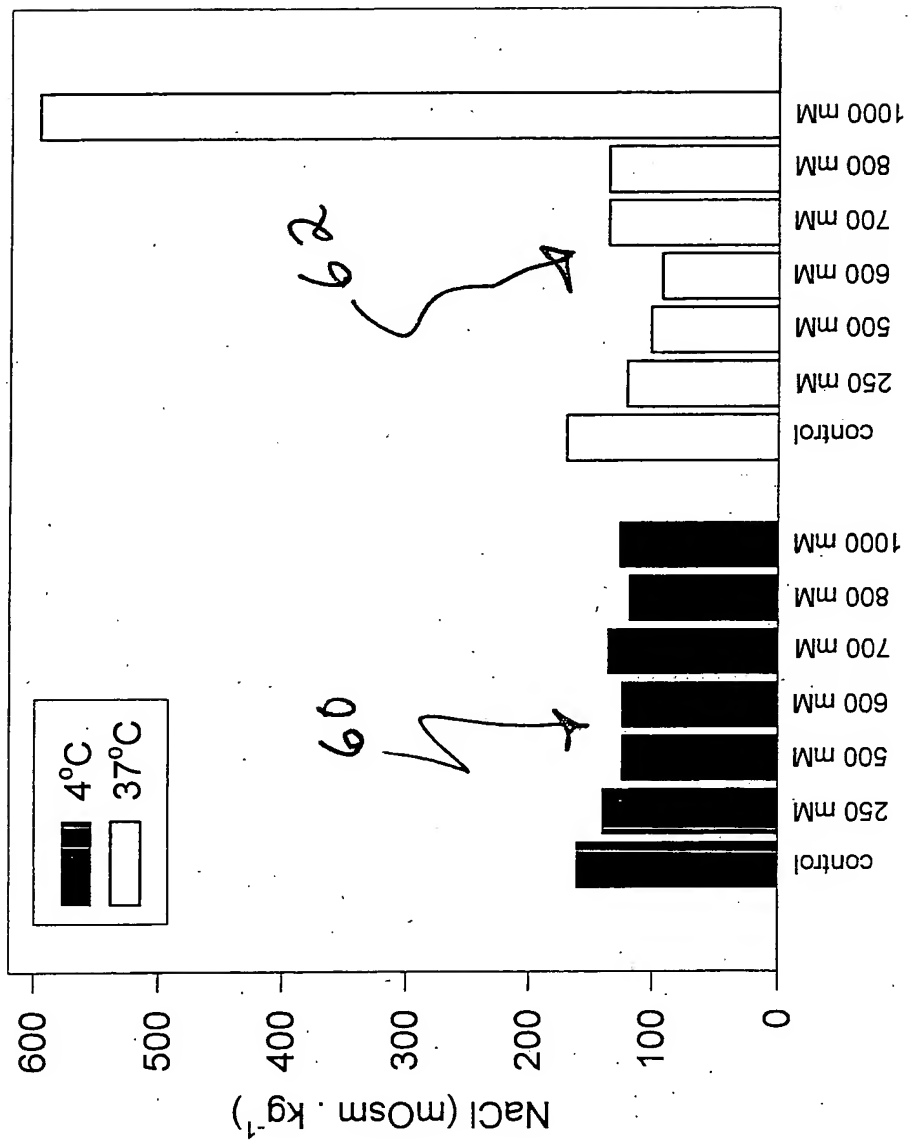


Figure 6

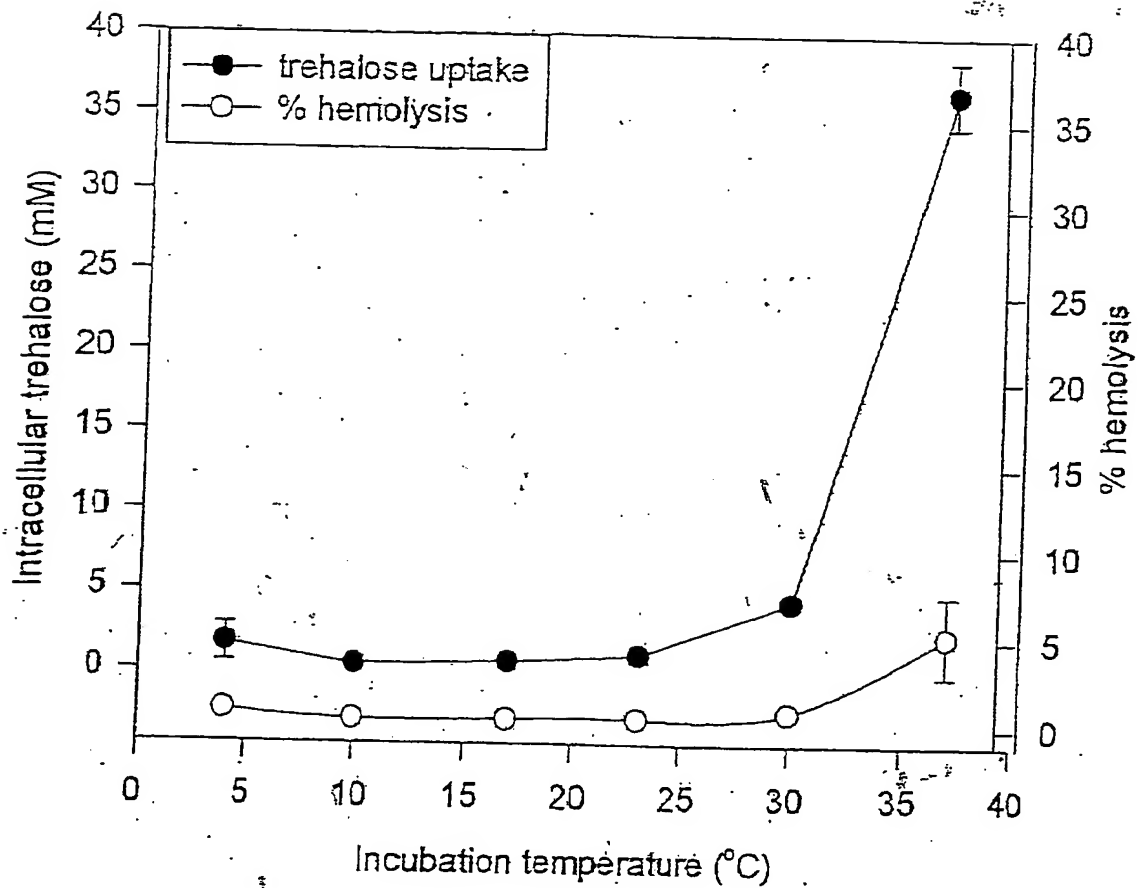


Fig 7

Intracellular trehalose concentration as a function of the osmolarity of the washing buffer.

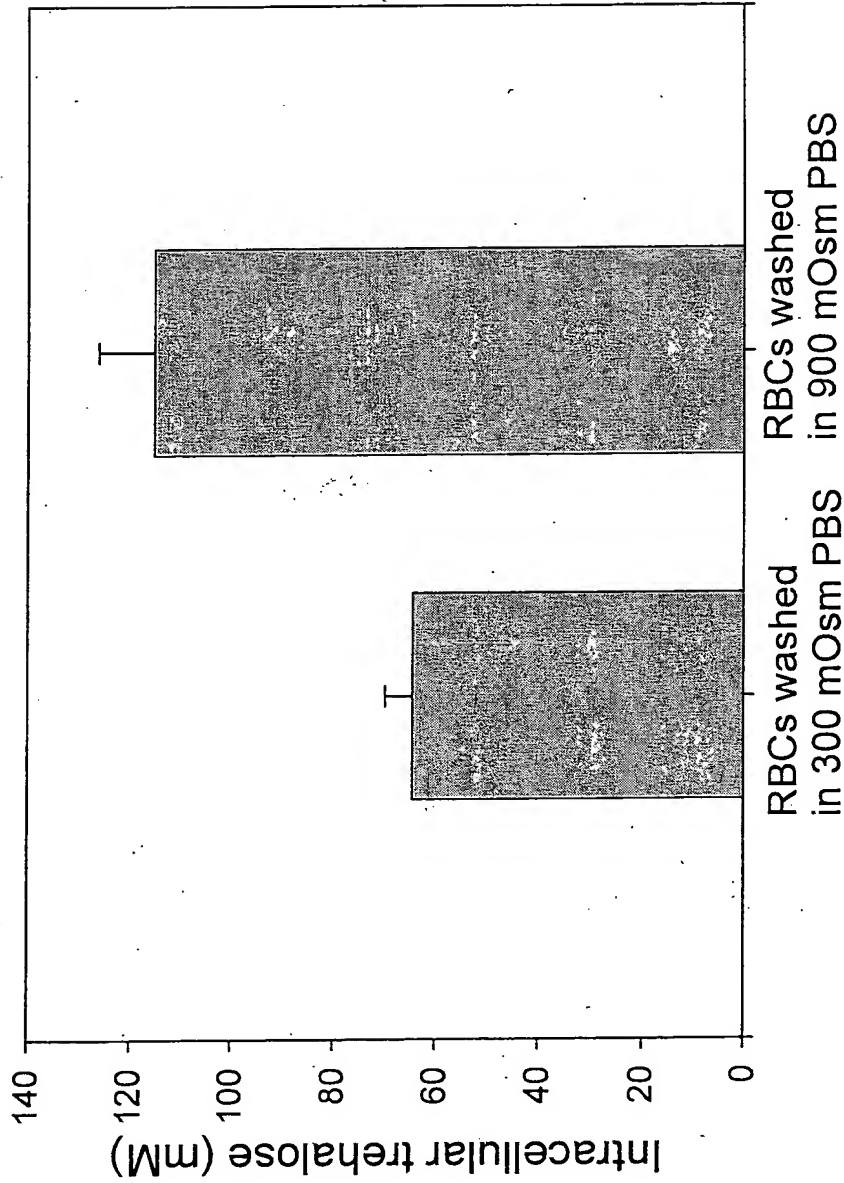


Figure 8

Percent hemolysis of trehalose loaded RBCs as a function of time of incubation in 300 mOsm PBS. RBCs were loaded in 700 mM trehalose/100 mOsm PBS at 35°C for 16 hours and were incubated in 300 mOsm PBS.

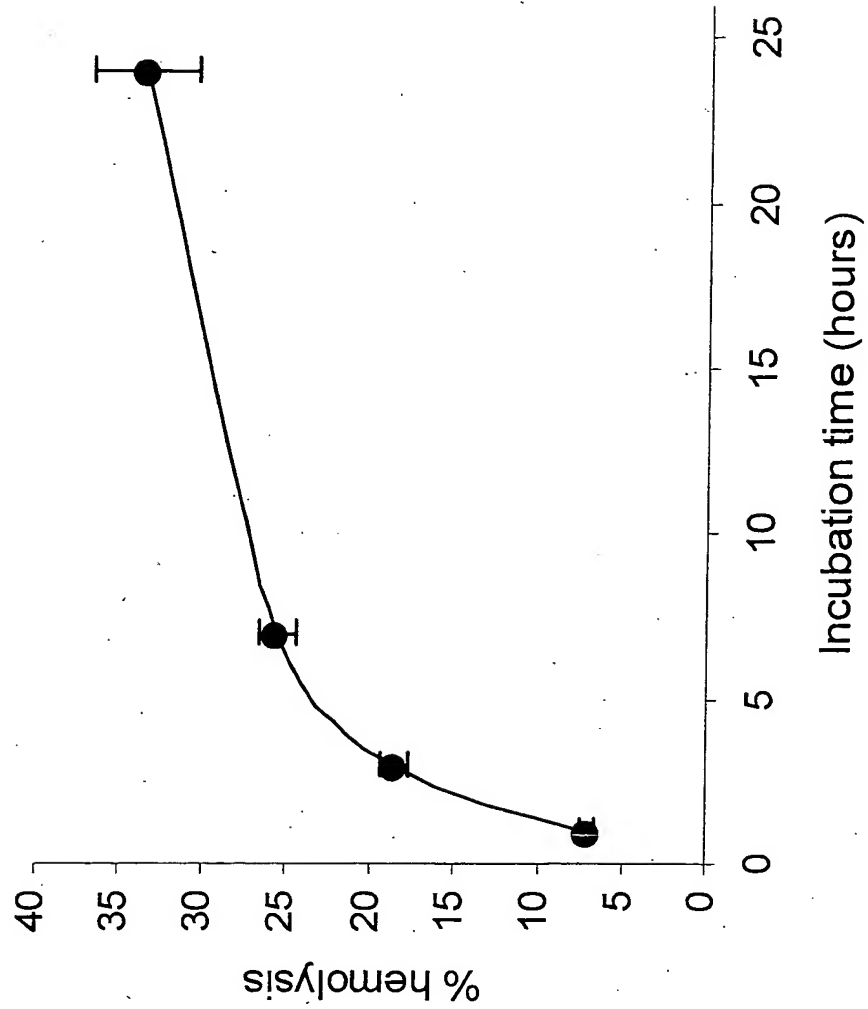


Figure 9

Percent hemolysis of trehalose loaded RBCs as a function of the composition of the incubation buffer. RBCs were loaded in 700 mM trehalose/100 mOsm PBS at 35°C for 16 hours

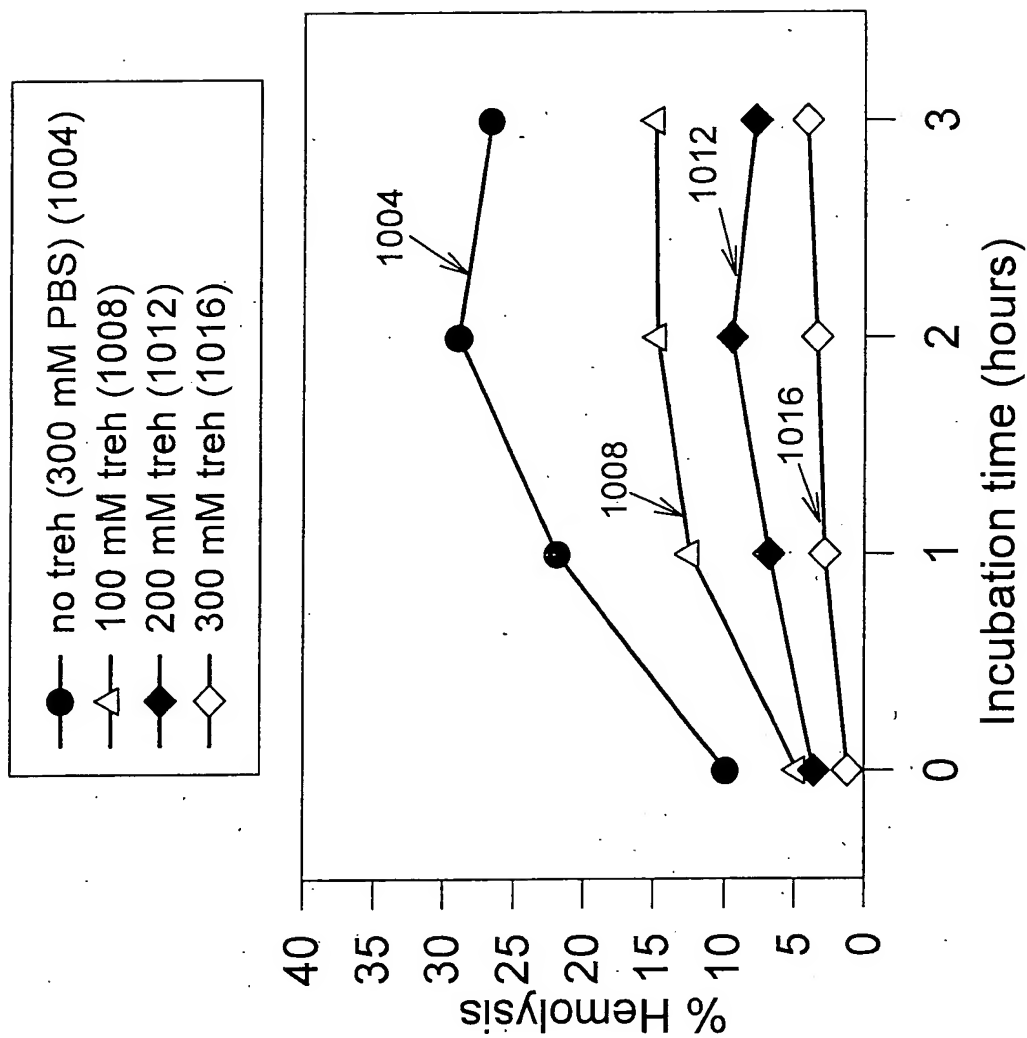


Figure 10

Percent hemolysis of trehalose loaded RBCs as a function of the composition of the incubation buffer.
RBCs were loaded in 700 mM trehalose/100 mOsm PBS at 35°C for 16 hours

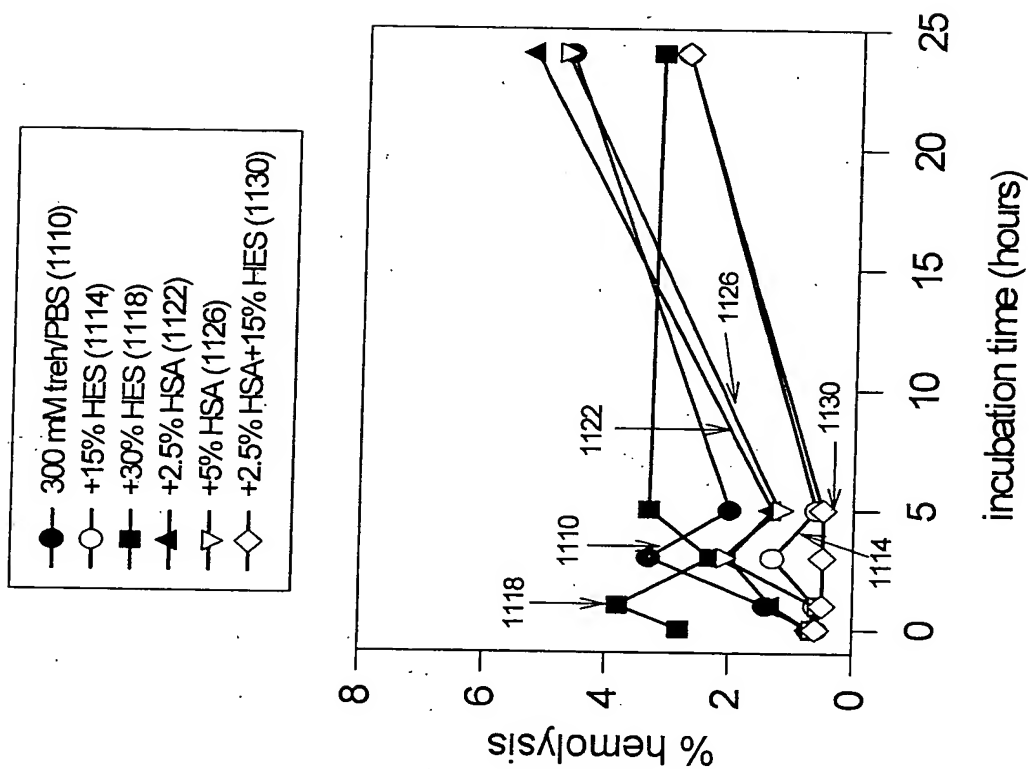


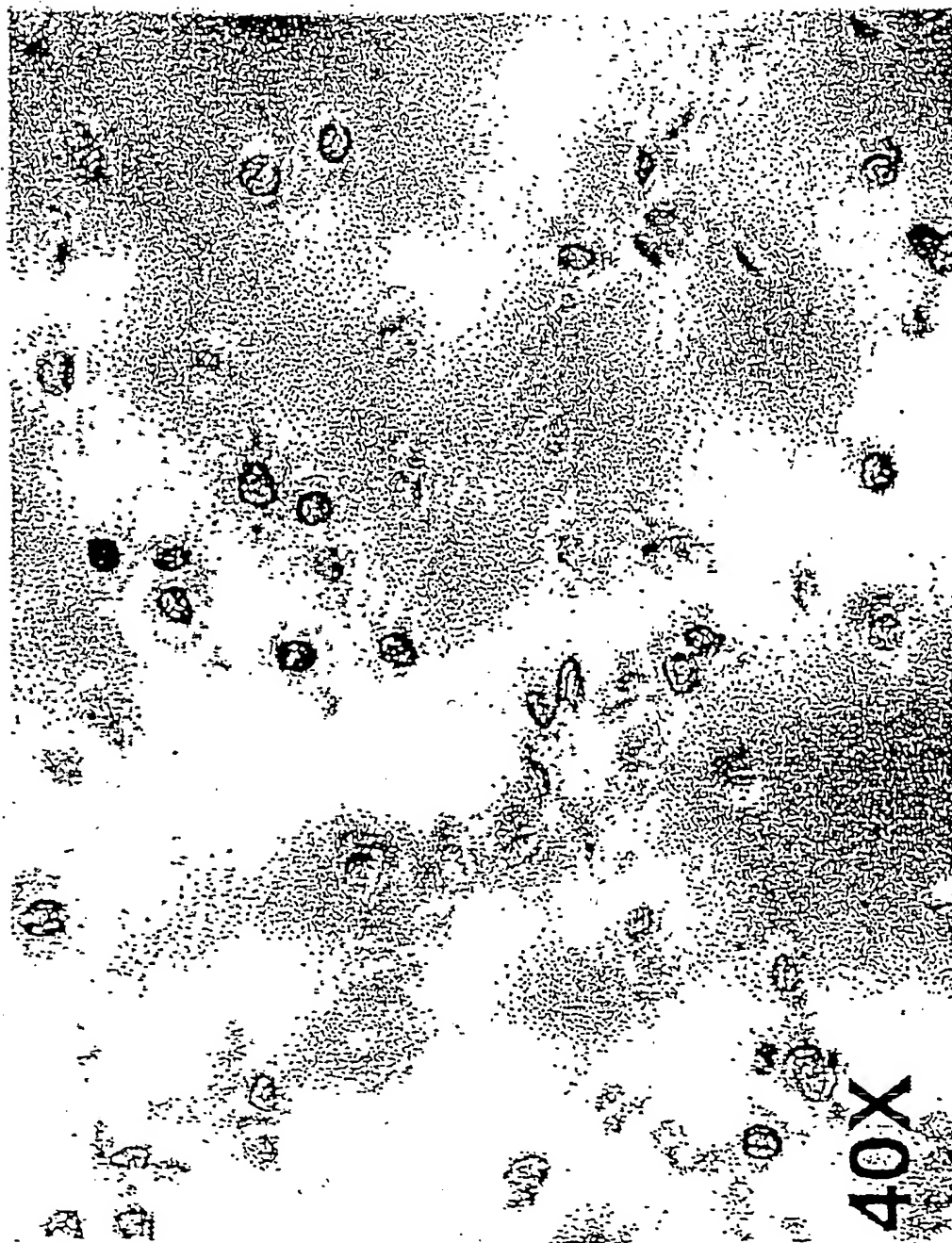
Figure 11

Docket: 010023-000810US

Inventors: John H. Crowe et al.

Title: *CELLS AND IMPROVED METHOD FOR
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Page No.: Page 10 of 25



0 mM

40X

Fig 12

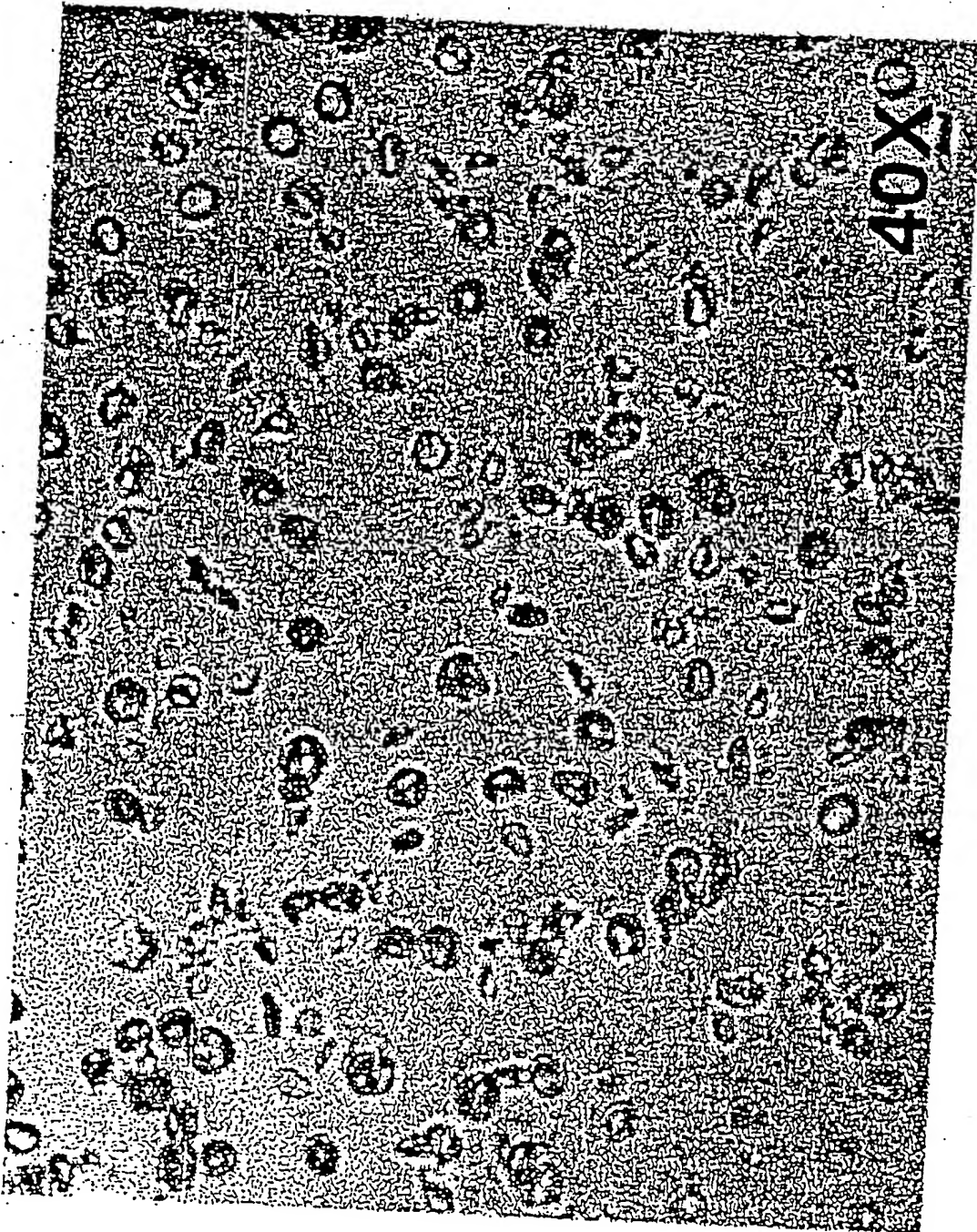


Fig 13

3 mM

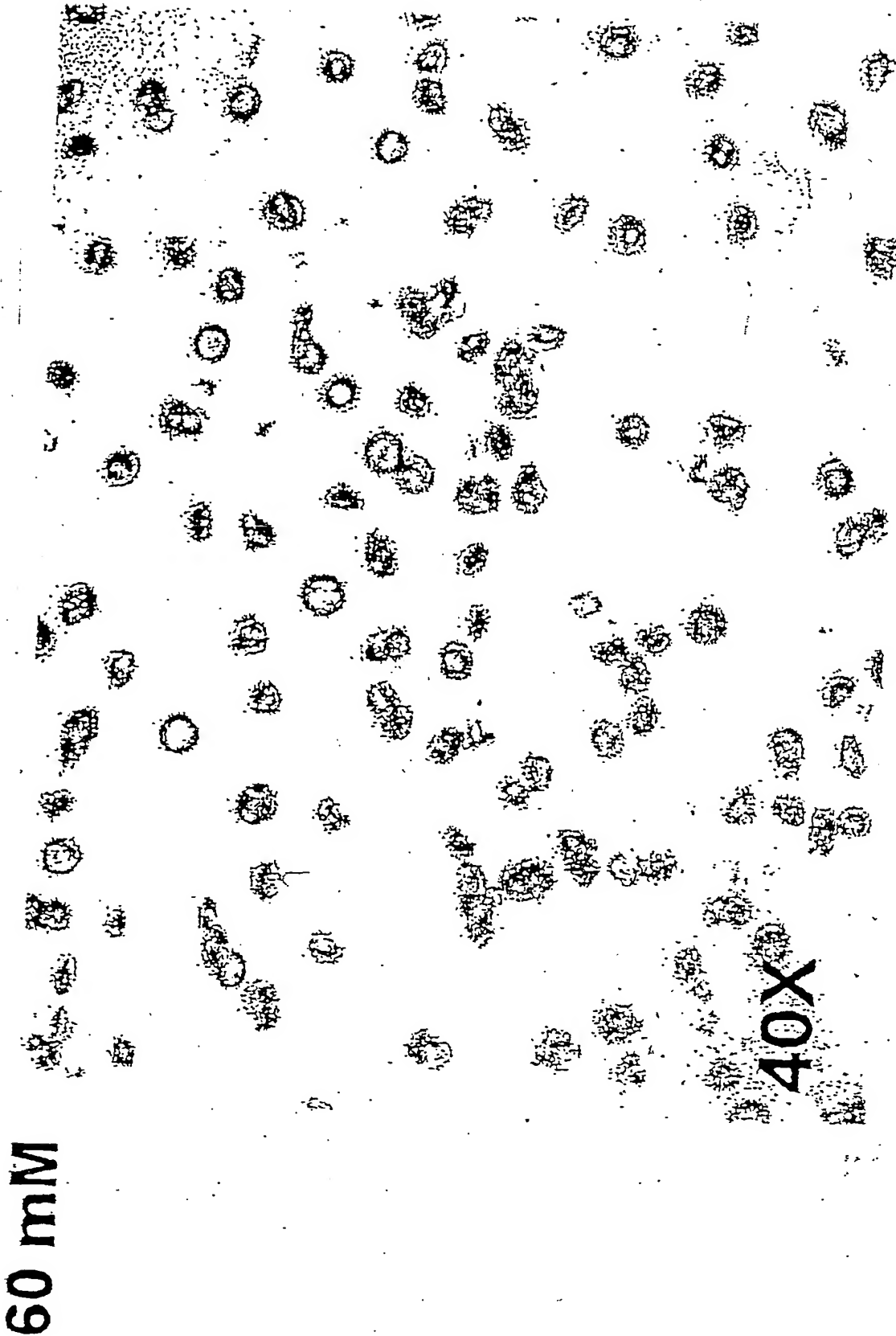


Fig 14

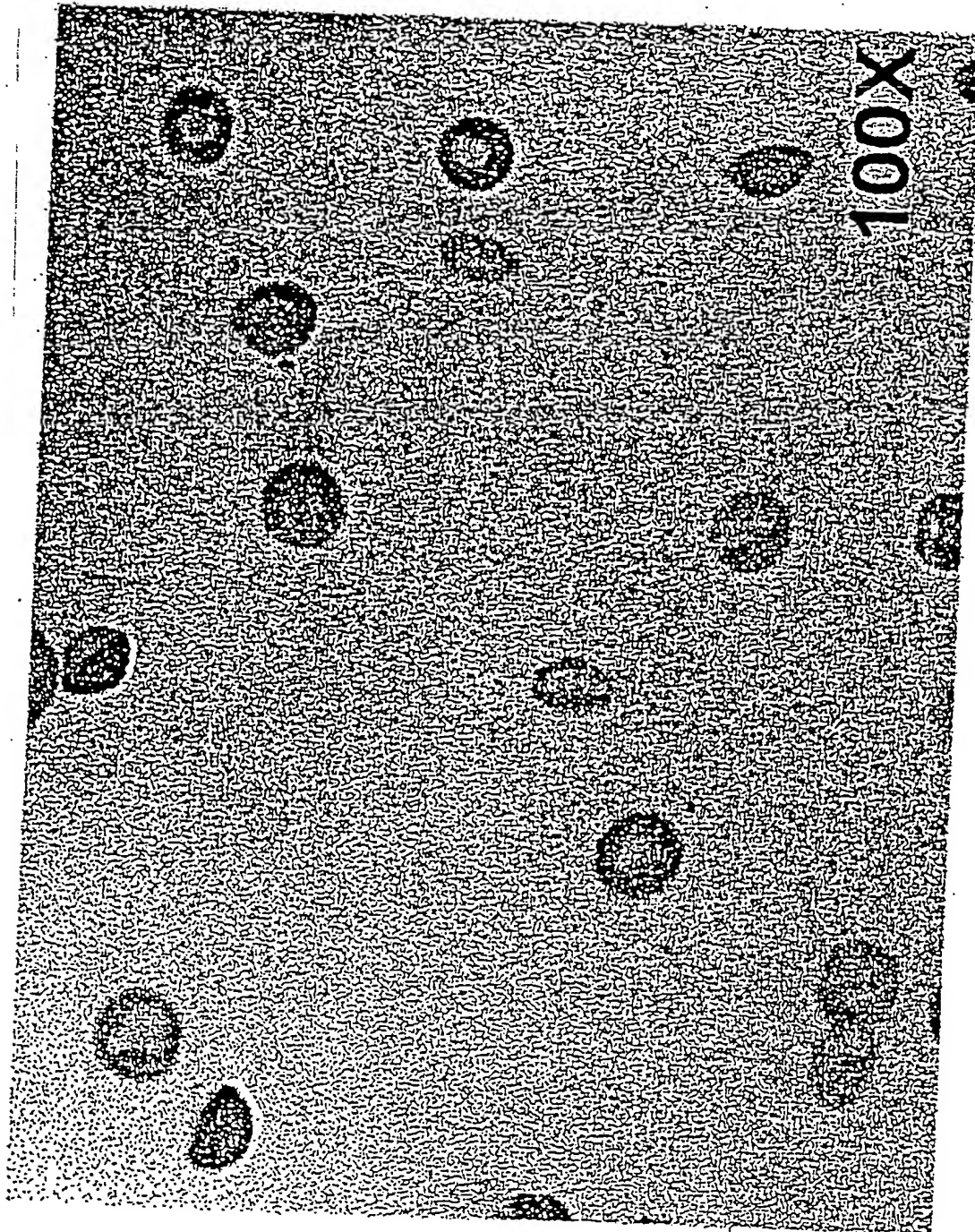


Fig 15

60 mM

Fig 16

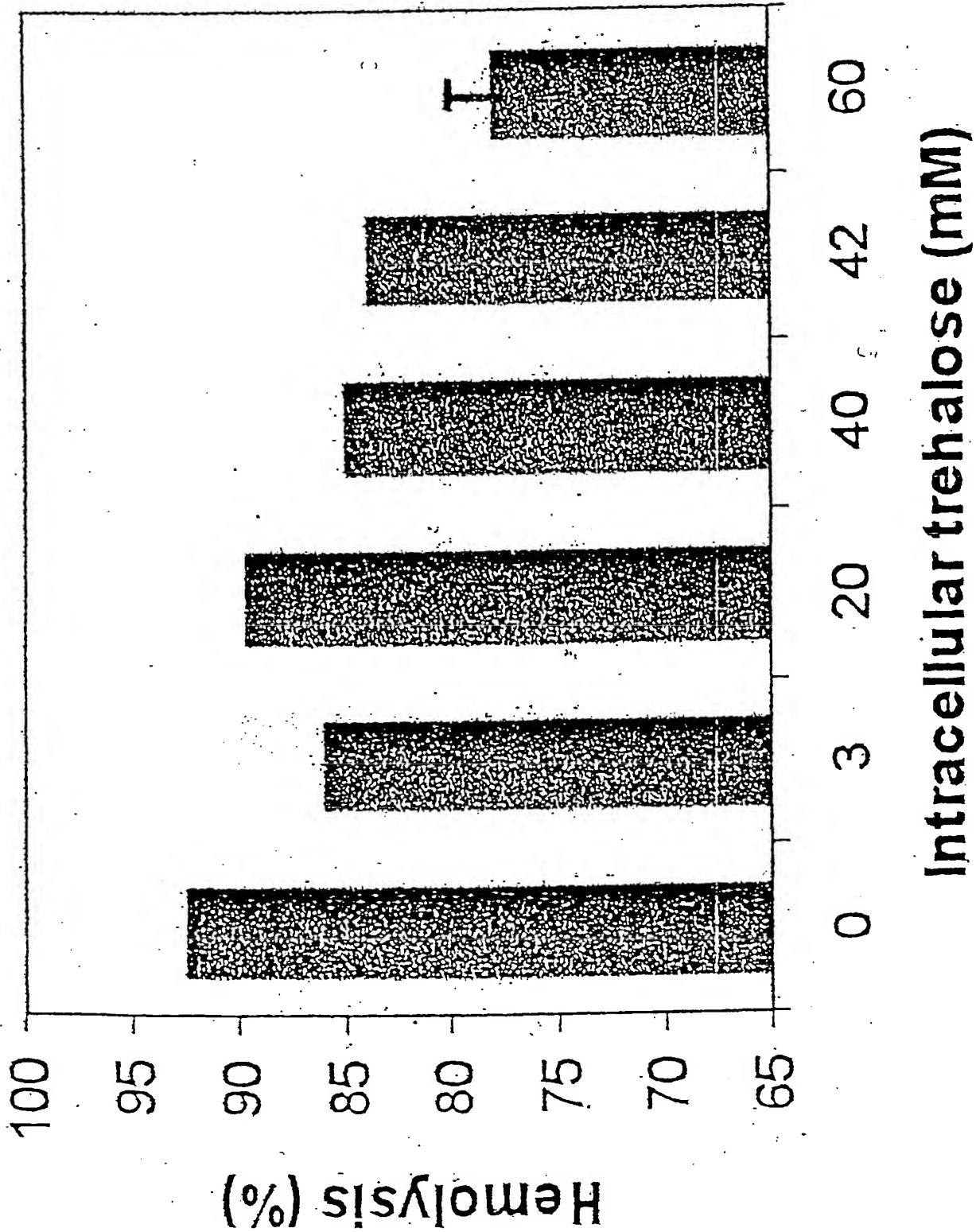
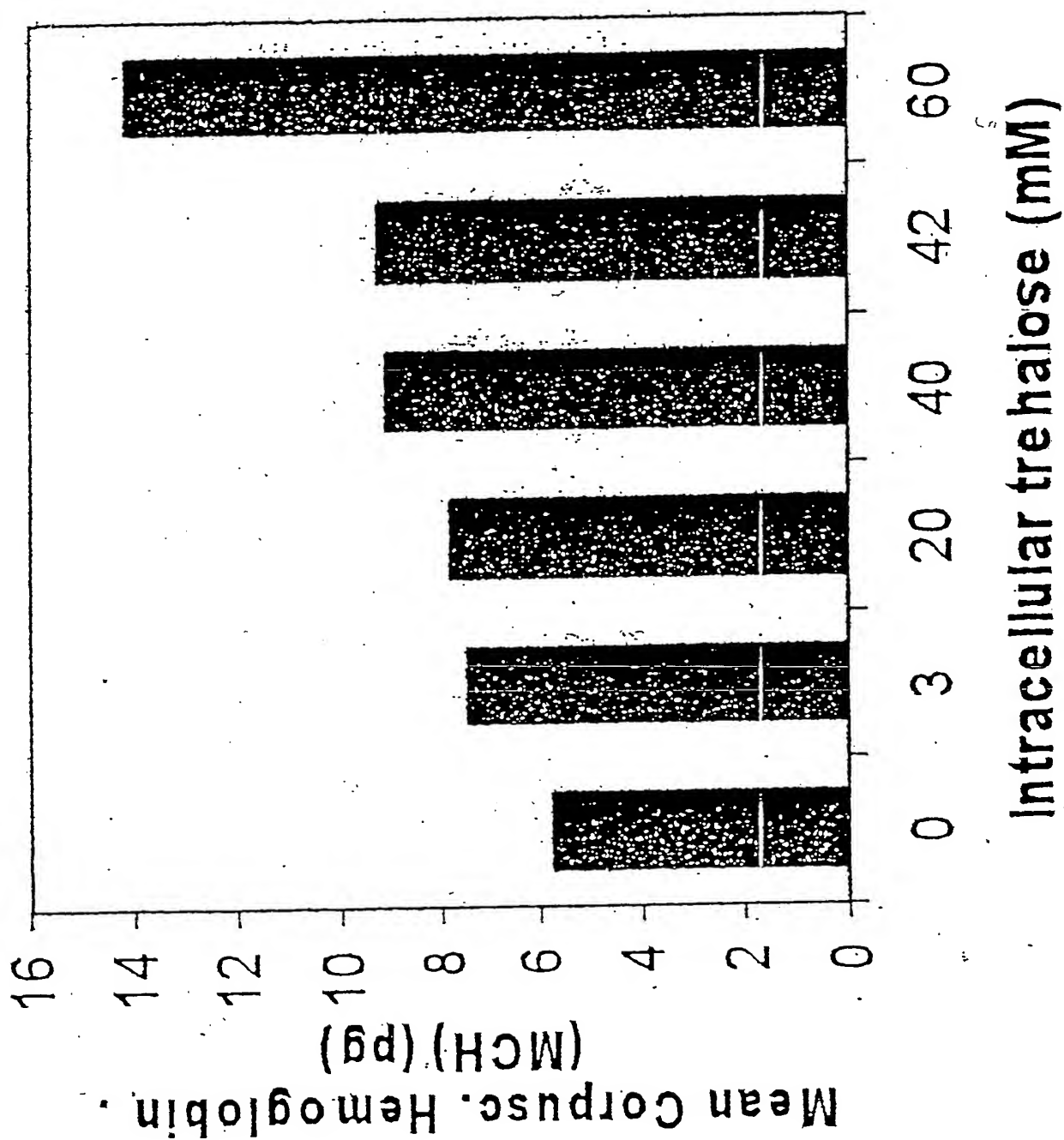


Fig 17



ATP ($\mu\text{mol/g Hb}$) in erythrocytes incubated in 800 mM trehalose and different buffers
(see legend) as a function of time of incubation at 40°C

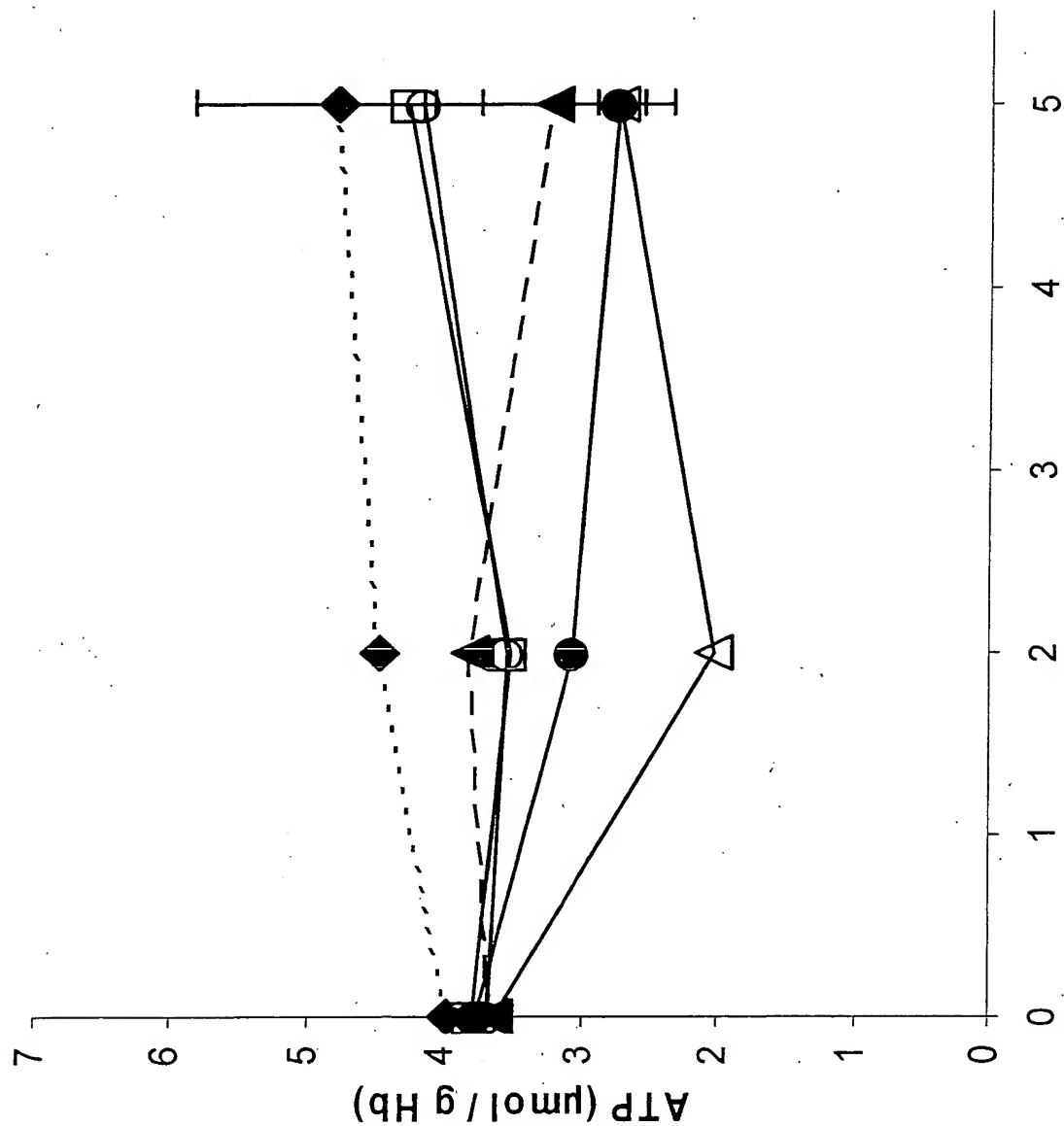


Figure 1

2,3-DPG level in erythrocytes incubated in different buffers as a function of time of incubation at 40°C

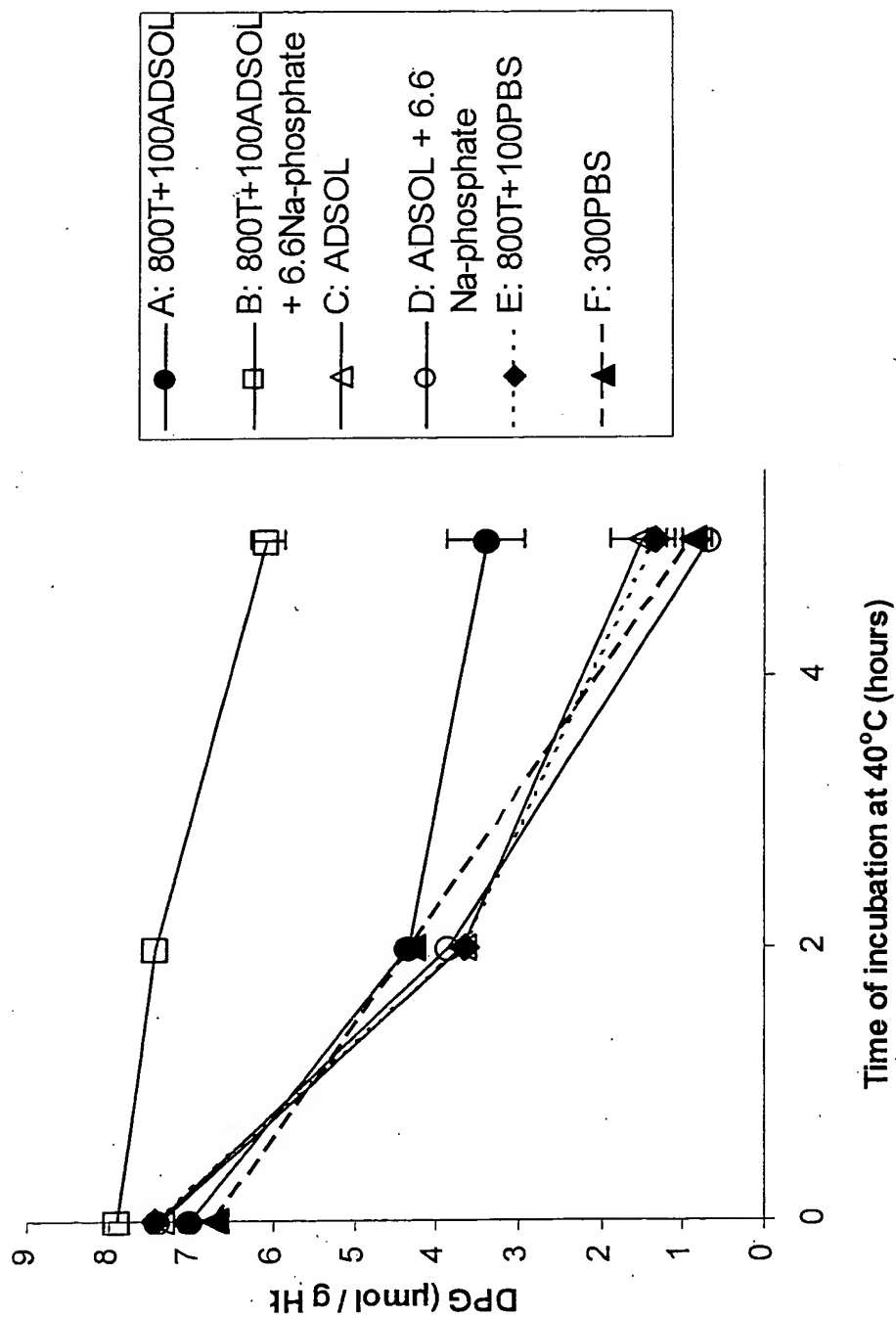
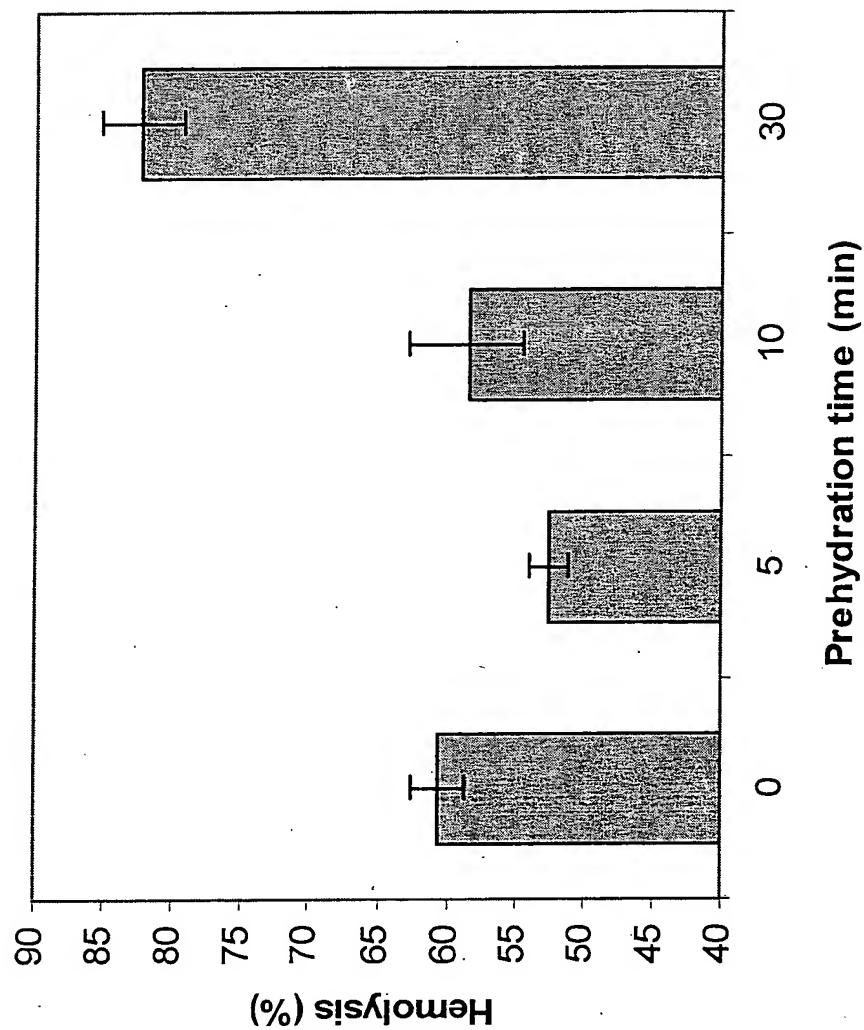


Figure 19

Effect of time of prehydration on the survival of freeze-dried
and rehydrated erythrocytes



Effect of α -crystallin on the survival of freeze-dried and rehydrated erythrocytes

Docket: 010023-000810US
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Title: *CELLS AND IMPROVED METHOD FOR PRESERVING CELLS*
Page No.: Page 19 of 25

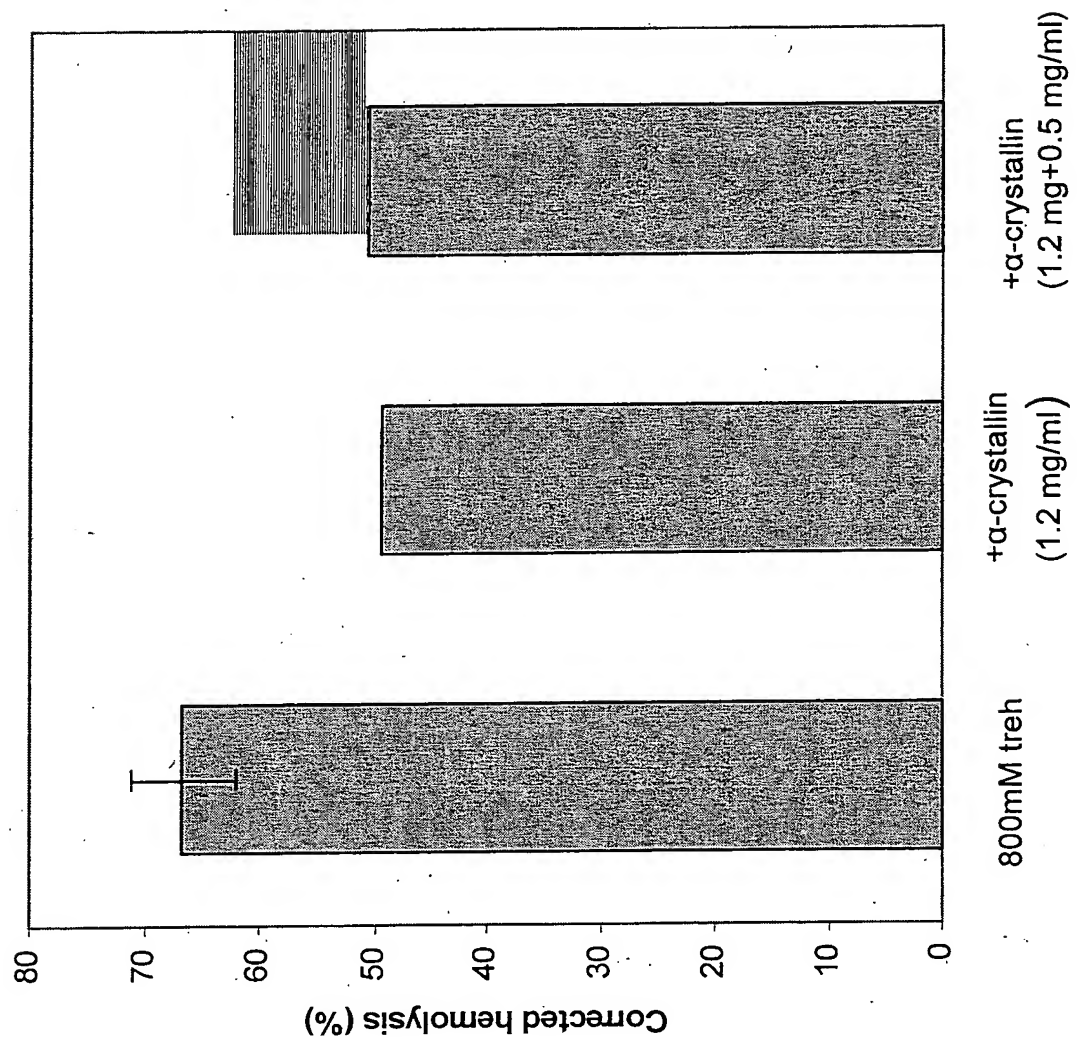


Figure 21

Effect of pre-hydration (5 min), α -crystallin (1.2 mg/ml) and Zn^{2+} (500 μl) on the survival of freeze-dried and rehydrated erythrocytes.

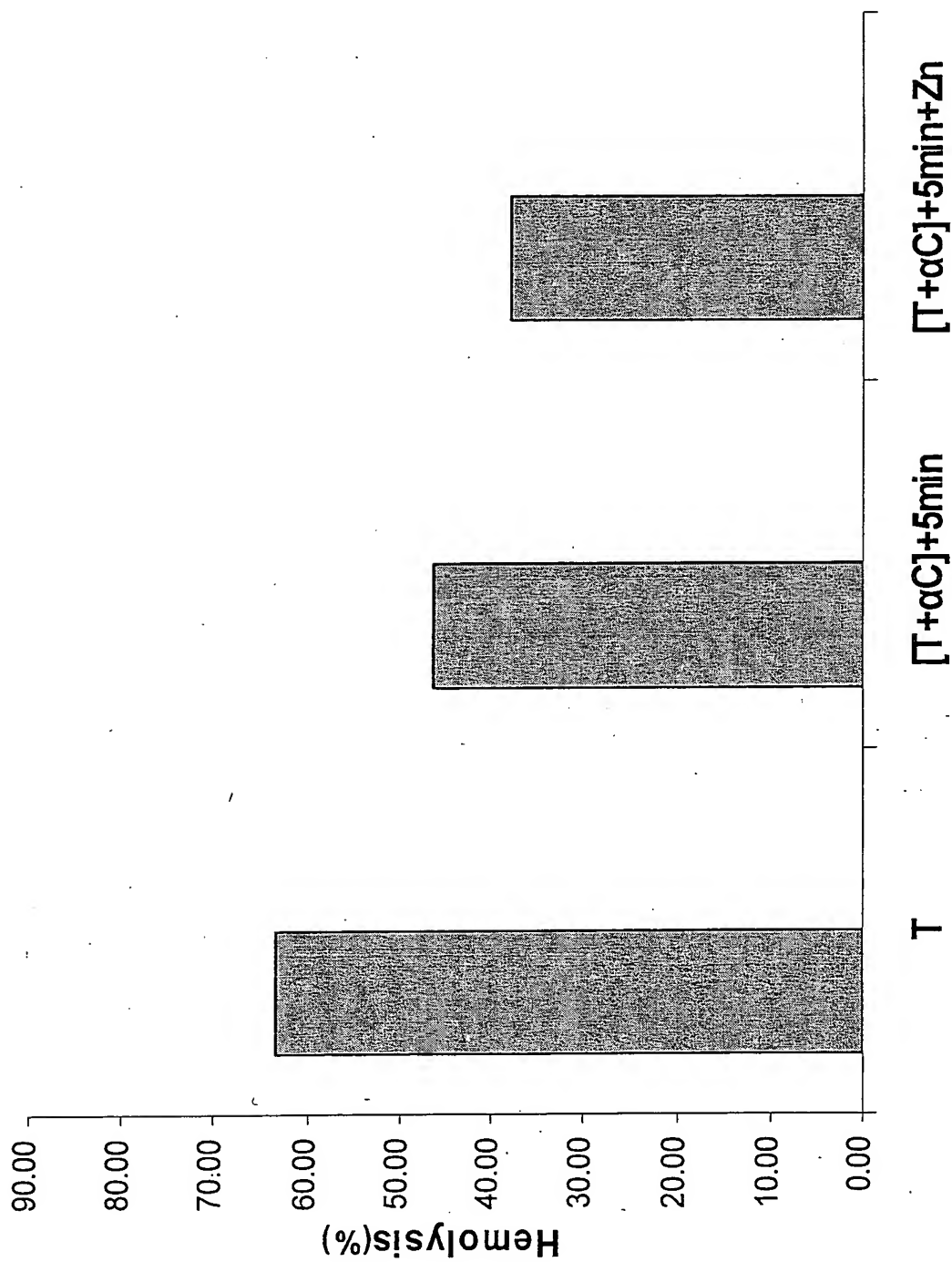


Figure 22

Effect of rejuvenating buffer on the synthesis of ATP and 2,3-DPG in rehydrated erythrocytes.

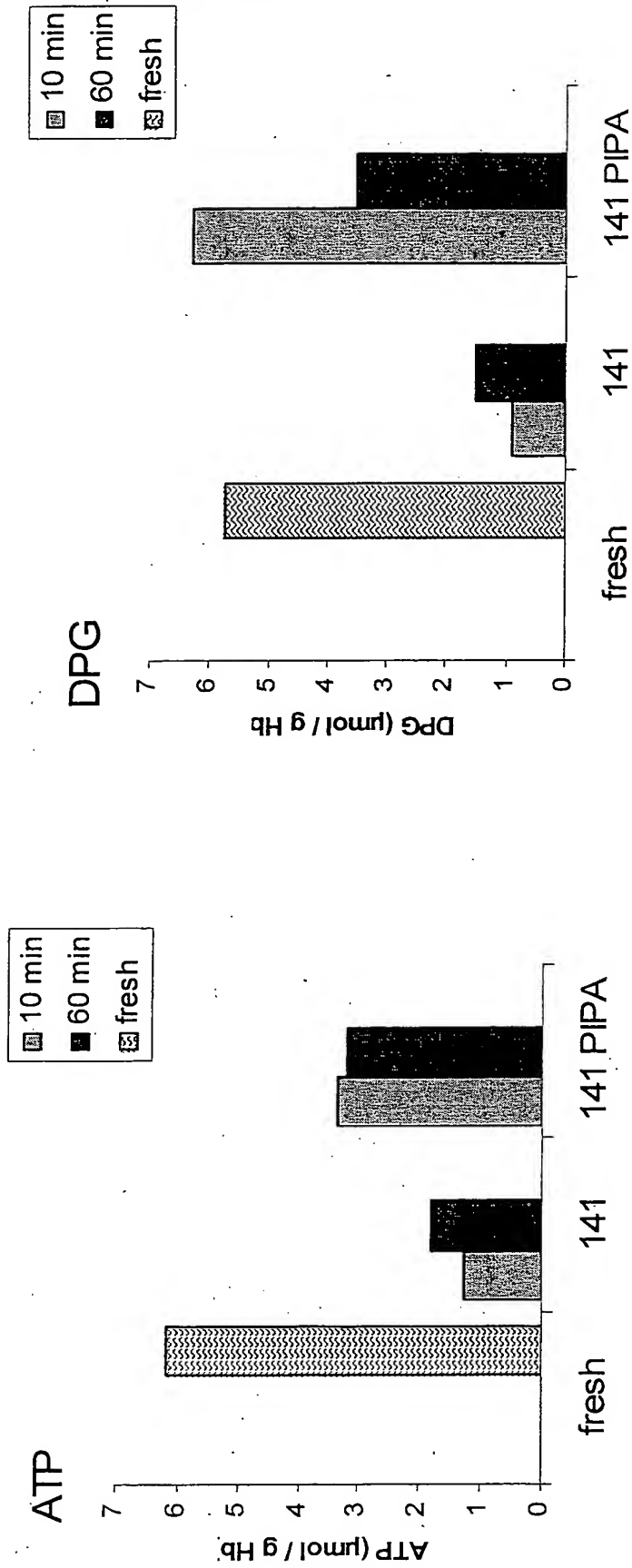


Figure 23

Figure Trehalose uptake by RBCs as a function of time of incubation in 800 mM trehalose/100 mOsm ADSOL/6.6 mM Na-phosphate (pH 7.2). 100 mOsm ADSOL is composed of 24mM glucose, 0.43 mM adenine, 33.3 mM NaCl and 8.9 mM mannitol)

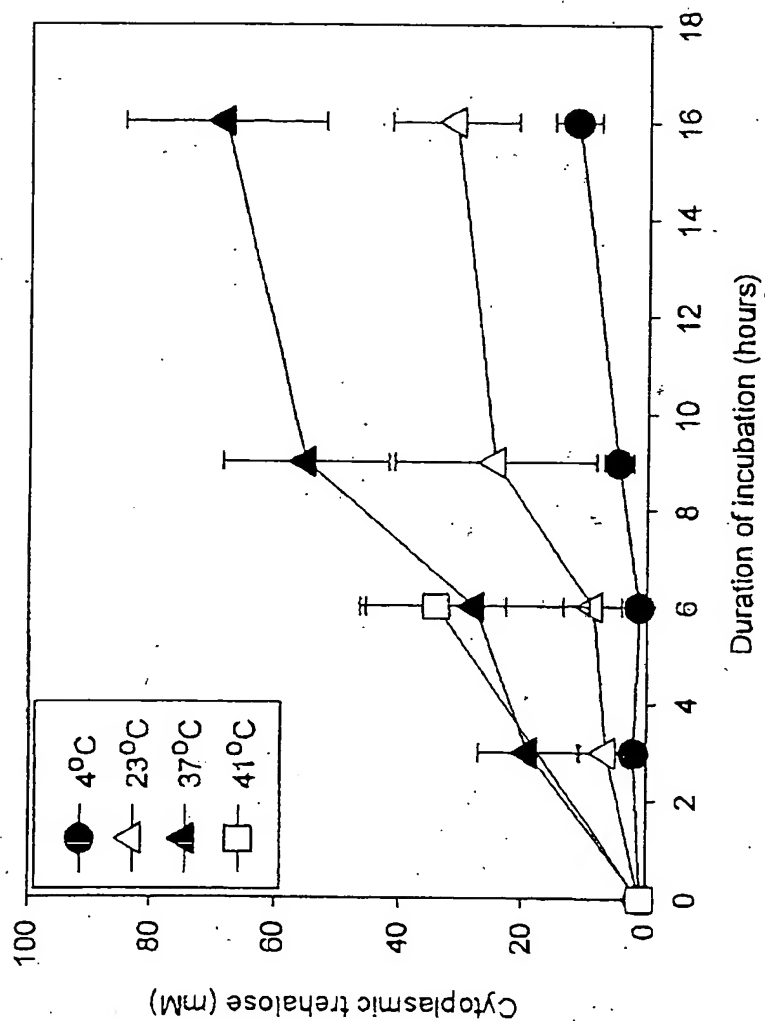


Fig 24

Figure Percent hemolysis of RBCs during incubation in 800 mM trehalose/100 mOsm ADSOL/6.6 mM Na-phosphate at 4°, 23°, 37°, and 41°C.

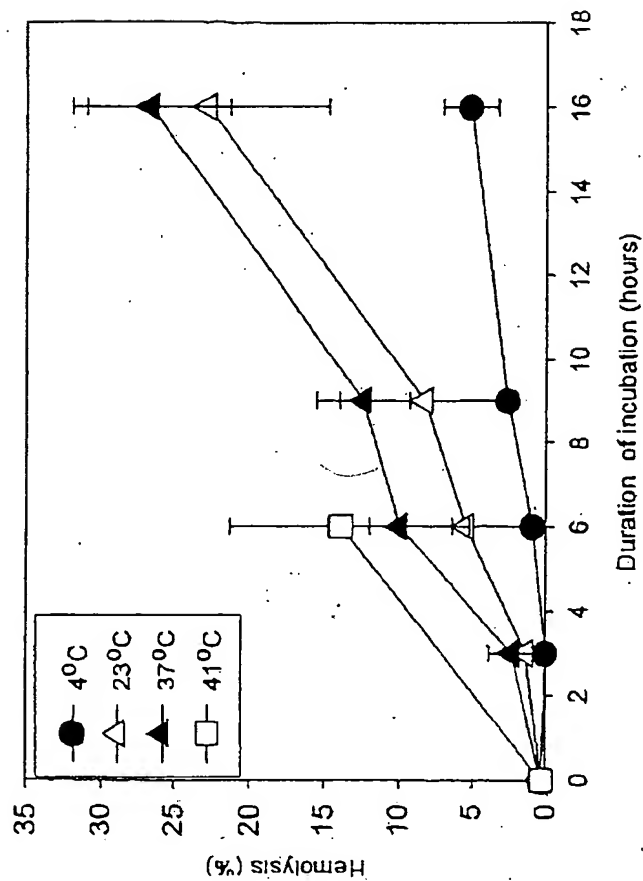


Fig 25

Figure ATP level of RBCs during incubation in 800 mM trehalose/100 mOsm ADSOL/6.6 mM Na-phosphate at 4° and 37°C.

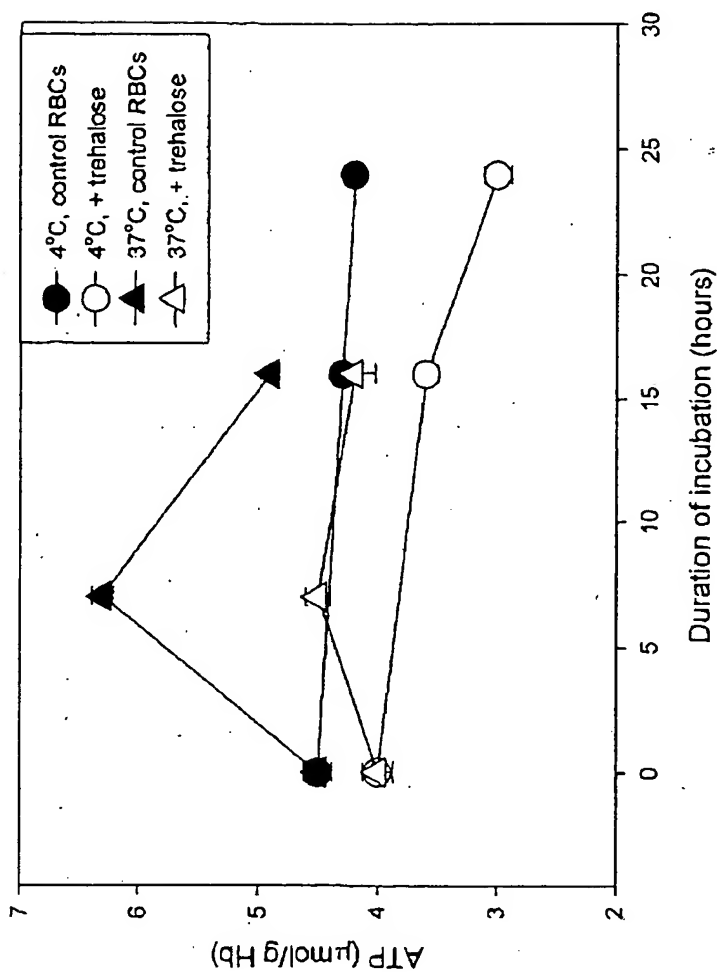


Fig 26

Figure 2,3-DPG level of RBCs during incubation in 800 mM trehalose/100 mOsm ADSOL/6.6 mM Na-phosphate at 4° and 37°C.

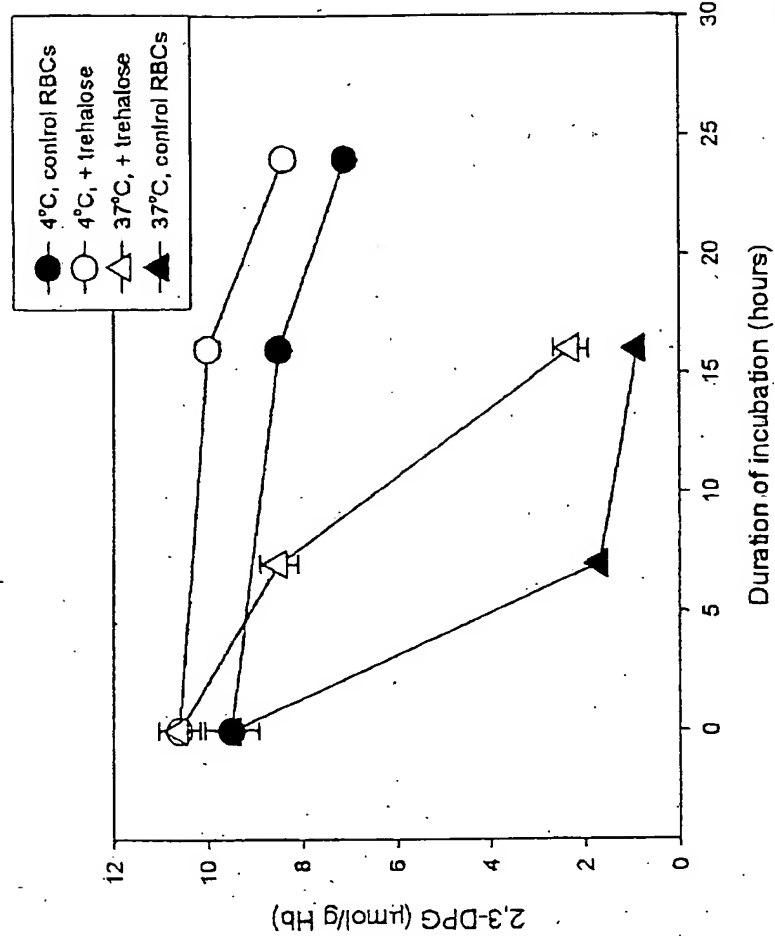


Fig 27